

Notice of Allowability

Application No.

09/785,112

Applicant(s)

KAMATA ET AL.

Examiner

Art Unit

Christopher R. Magee

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the reply filed on 10/29/2004.
2. ☒ The allowed claim(s) is/are 1-7.
3. ☒ The drawings filed on 16 February 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Amendment

1. The reply filed 10/29/2004 was applied to the following effect: All relevant objections and rejections are withdrawn as being satisfied.

Reasons for Allowance

2. Claims 1-7 are allowed.

The following is an examiner's statement of reasons for allowance:

This application is for a METHOD OF MAKING A MAGNETORESISTIVE HEAD ELEMENT.

- **Claim 1** specifies a method of making a magnetoresistive head element which requires:

“forming an insulating base layer over the surface of the substratum, said insulating base layer contacting at least partly the side surface of the magnetoresistive film; and effecting an etching process while keeping the insulating base layer contacting the side surface of the magnetoresistive film.”

Yoshida et al. (JP 11-339228) teaches a magnetoresistive film [3] formed on the surface of the lower gap layer [2], as shown in Figures 1 and 2. The lower gap layer [2] does not contact the side surface of the magnetoresistive film [3]. Thus, the side surface of the magnetoresistive film [3] might be exposed when the etching process occurs. Resulting in a chemical reaction occurring between the etching gas and the magnetoresistive film [3], a problem addressed and solved by the present invention.

Therefore, these features, in combination with other features of claim 1, is not anticipated by, nor made obvious over, the closest prior art of record of Yoshida '228.

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- **Claim 5** specifies a method of making a magnetoresistive head element which requires:

“removing the layered composite and the material layers in a region adjacent the resist films so as to shape the magnetoresistive film and the domain control stripe layers out of the layered composite and the material layers below the resist film” and “removing the resist film so as to expose the magnetoresistive film and the domain control stripe layers at a gap defined in the insulation base layer.”

Yoshida '228 does not disclose, teach or suggest the above-mentioned limitations of the claimed invention.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Magee whose telephone number is (571) 272-7592. The examiner can normally be reached on M-F, 8:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

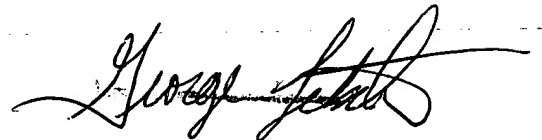
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 15, 2005



Christopher R. Magee
Patent Examiner
Art Unit 2653



GEORGE J. LETSCHER
PRIMARY EXAMINER